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PATENT Modi Case 2

Modi Case 2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

矩XAMINER: J. Venkat

ART UNIT: 1615

In re patent application of:

Jashawant J. Modi

SERIAL NO: 08/855,779

FILED: May 12, 1997

FOR: Hydrophobically Modification 8 TRI Polysaccharides In Personal

Care Products

Hon. Assistant Commissioner For Patents

Washington, D. C. 20231

Sir:

BRIEF FOR APPELLANT

THE REAL PARTY IN INTEREST

The real party in interest concerning the above-entitled application is Aqualon Company, a Division of Hercules Incorporated.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to appellants, the appellants' legal representative, or assignee concerning the above entitled application which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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STATUS OF CLAIMS

This is an appeal from the final rejection under 35 U.S.C. 102(b) or in the alternative under 35 U.S. C. 103 of Appellants' claims 1 to 44.

STATUS OF AMENDMENTS

In the Advisory Action dated October 29, 1999, the Examiner indicated that the Amendment filed in response to the Final Rejection dated August 3, 1999 has been considered, would not overcome the rejection of claims 1 to 44, but will be entered upon filing a Notice of Appeal and an Appeal Brief.

SUMMARY OF INVENTION

This invention is directed to a personal care composition (see line 21 of page 2, and Examples 1-14 on pages 8-28) comprising a) from about 0.1% to about 99% by weight of a vehicle system which comprises a hydrophobically modified nonionic water soluble polysaccharide polymer having a hydrophilic portion which comprises a water soluble polysaccharide polymer backbone and a hydrophobic moiety selected from the group consisting of C₃-C₇ alkyl, aryl alkyl, alkyl aryl groups and mixtures thereof, wherein the ratio of the hydrophilic portion to the hydrophobic portion of the polymer is from about 2:1 to 1000:1, (page 2, lines 22-28) and b) at least one active personal care ingredient (page 2, line 29, page 6, lines 21-33, and page 7, lines 1-20).

More specifically, the hydrophobically modified polysaccharide backbone is selected from the group consisting of hydroxyethylcellulose (HEC), hydroxypropylcellulose (HPC), methylcellulose (MC), hydroxypropylmethylcellulose (HPMC), ethylhydroxyethylcellulose (EHEC), and methylhydroxyethylcellulose (MHEC), and agar, dextran, locust bean gum, starch, guar, and their nonionic derivatives, and mixtures thereof (page 3, lines 3-6).

THE ISSUES

Whether claims 1-8, 10, and 44 are anticipated under 35 U.S.C. 102(b) by Angerer '733.

Whether claims 1-8 and 44 are anticipated under 35 USC 102(b) by Sau '772.

Whether claims 1-8, 9, and 44 are anticipated under 35 U.S.C. 102(b) by t'Sas '207.

Whether claims 11-43 are obvious under 35 U.S.C. 103 in view of Angerer '733 or Sau '772.

TRAVERSE OF THE REJECTIONS

Appellant traverses the Examiner's rejection under 35 USC 102 (b) of claims 1-8, 10, and 44 as being anticipated by Angerer '733.

Appellant traverses the Examiner's rejection under 35 USC 102 (b) of claims 1-8 and 44 as being anticipated by Sau '772.

Appellant traverses the Examiner's rejection under 35 USC 102 (b) of claims 1-8, 9, and 44 as being anticipated by t'Sas '207.

Appellant traverses the Examiner's rejection under 35 U.S.C. 103 of claims 11-43 as being unpatentable over Angerer '733 or Sau '772.

THE CITED ART

U.S. Patent No.4, 845,207 (t'Sas) discloses a new nonionic, water-soluble cellulose ether, i.e., 3-alkoxy-2-hydroxypropylhydroxyethyl cellulose

radical that is used in building compositions based on hydraulic or synthetic binder containing the new nonionic cellulose ether.

- U.S. Patent No 4,902,733 (Angerer) discloses an aqueous protective coating composition comprising a nonionic, water soluble 3-alkoxy-2-hydroxypropylhydroxyethyl cellulose radical and a film forming latex.
- U.S. Patent No. 4,904,772 (Sau) discloses a water soluble, cellulose ether containing two or more hydrophobic radicals having 6 to 20 carbons that can be long chain alkyl, alphahydroxyalkyl, urethane, acyl and 3-alkoxy-2-hydroxypropyl radical wherein one of the hydrophobic radicals has a carbon chain length that is at least two carbons longer than that of the other of the hydrophobic radicals.

THE GROUPING OF CLAIMS

Although the rejection in the Examiner's Final Rejection apply to more than one claim, the rejected claims do not all stand or fall together, inasmuch as the claims directly or indirectly depend on claim 1, i.e., claims 2 - 44, are separately patentable for the following reasons.

Specifically, dependent claim 2 requires that a surfactant be present and claim 3 defines more specific types of surfactants that can be present. These claims are grouped together and are separately patentable over the cited prior art.

Claims 4 to 7 are directed to the addition of compatible solvents or solvent mixtures to claim 1, which are preferred embodiments of the composition of claim 1. Since claim 1 is patentable, these claims are even more patentable than claim 1 because they further separately define the claims over the other claims and the prior art.

Claims 8 and 9 further define the backbone polymer of claim 1 which make these claims more patentable than claim 1.

Claim 10 requires that a viscosifying salt be present in claim 4 which further limits claim 4. Since claim 4 is patentable over the prior art, this claim 10 is even more patentable than claim 4.

Claims 11 and 20 define a preferred embodiment of a hair care formulation of claim 7 and are further patentable over claim 7.

Claims 12, 13, and 19, define preferred embodiments of claim 4 and are further patentable over claim 4.

Claims 14-18, and 21-41 define preferred specific embodiments of claim 1 and are each further patentable over claim 1.

Claims 42 and 43 define linkage groups for the polymer and are grouped with claim 1.

Claim 44 defines a specific hydrophobic moiety that is even more patentable than claim 1.

ARGUMENTS

A. The Claims Are Not Properly Rejected Under 35 USC 102 (b) As Being Anticipated, or Under 35 USC 103 As Being Unpatentable, By Angerer, Sau or t'Sas.

a. The Rejection Improperly Ignores Important Differences
Between The Claimed Invention and the Prior Art.

Concerning the Angerer patent, Appellant has now amended the claims to include in claim 1 that the personal care ingredient is an active personal

care ingredient as defined in the specification on pages 6 and 7 as well as in the working Examples on pages 8 to 30. Angerer is directed solely to an aqueous protective coating composition that is in a non-analogous field from a personal care composition. The active ingredients in personal care compositions are completely different than the ones for aqueous protective coating compositions or paints. A person having an ordinary skill in the art armed with the Angerer patent would not be directed to using such paint formulation for personal care products.

Concerning the Sau patent, it must be reiterated that the Sau reference discloses a mixed hydrophobe polymer with at least two (2) hydrophobic radicals where one can be the 3-alkoxy-2-hydroxypropyl moiety and the other hydrophobe has to be at least two (2) carbon atoms longer than the first. When one of the hydrophobes of the Sau reference is a C₆, the other has to be at least C₈; Sau is an associative thickener because of the long chain alkyl groups while the instant invention is not and can never be an associative thickener. Associative thickeners have different properties than the instant invention. Again, it must be reiterated that the Sau patent is enabling only for the use in latex paint. There is no disclosure in Sau on how to make or use its water soluble cellulose ether polymer in personal care compositions. Although Sau discloses in column 10, line 11, that his polymers can be used as thickeners in cosmetics and shampoos, there simply is no disclosure in this reference or working example on how to make the cosmetics and/or shampoos. These are merely empty disclosures without apprising or enabling a person skilled in the art how to practice the invention regarding these two types of compositions. The entire content and spirit of this invention is directed to the use in paints or coating compositions. There simply is no disclosure of an active personal care ingredient as defined in the instant invention for use in the Sau reference. Assuming arguendo that one could use the Sau polymer in cosmetics and shampoos, the associative nature of the

Sau polymers would give the cosmetics different properties than would be provided in the instant invention so that the cosmetics would not be the same. Hence, the Sau reference clearly does not anticipate the instant invention.

Concerning the t'Sas patent, it is directed only to building compositions. There is no disclosure in this patent for apprising a person skilled in the art how to use this composition for use in personal care compositions. Building materials and personal care compositions are in non-analogous arts. The active ingredients of the instant invention would not be suggested by the t'Sas patent. Hence, t'Sas patent clearly does not anticipate the instant invention. For the reasons set forth above, it is submitted that this rejection should be withdrawn.

Concerning the rejection based on obviousness by Angerer or Sau, it is submitted that the arguments set forth above concerning these references are herein repeated. Hence, it would not be obvious to a person having an ordinary skill in the art armed with the Angerer or Sau reference to make the instant personal care composition.

b. Examiner Makes Erroneous Conclusions Based on Angerer, Sau and t'Sas references

Appellants deny the contention that:

"Angerer '733 at col. 3, line 58 discloses coating compositions along with pigments which is same as claimed "active personal care ingredient." See page 7 of the specification under (9) for pigments. The same is true for patent '772."

Angerer, in column 3 in the paragraph in lines 53-60, and Sau, in column 7 in lines 6 and 7, discuss other components that are typically in aqueous protective coating compositions as being "opacifying pigment

(e.g. TiO₂, clay, calcium carbonate, silica, talc, etc.)." It is submitted that these "opacifying pigments" are powders or clays that are fine for paints but would not be used in hair treatments. Pigments for paints are used to hide defects in substrate surfaces, such as walls, while hair pigments (or dyes) are used to enhance the appearance of a person's hair; only a selected number of pigments can be used for treating hair that has met strict standards before being approved by a government regulatory agency. No such strict approval requirement is required for paints. Hence, it could not be imagined that a person would treat his/her hair with a clay or powder that is used in paints. Moreover, there is no suggestion to lead a person skilled in the art to take the paint composition of Angerer for use in hair treatment or other personal care compositions. It must be reiterated that personal care products and paints are in non-analogous arts.

Further concerning Sau, although Sau discloses in column 10, lines 8-12, that his mixed hydrophobe polymers could be used "as thickeners in cosmetics and shampoos," Sau's polymer is an associative polymer that does not come within the scope of the instant invention. The polymers of the instant invention have short chain hydrophobes and are non-associative. Because they are non-associative thickeners, they provide better salt tolerant properties. Salt is commonly used in personal care products, such as in shampoos, conditioners, and skin care products. Hence, a non-associative thickener will provide a product with better stability than an associative thickener. Generally, if an associative thickener is used in a personal care product, the product will tend to separate out over a short period of time. Hence, the shelf life of the product will be short. Another difference between non-associative and associative thickeners is that a non-associative thickener maintains clarity in the presence of salt used in the personal care products while an associative thickener will make the product hazy. Moreover, associative thickener can make personal care product's rheology

unpredictable in the presence of surfactants (e.g., sodium lauryl sulfate which is commonly used in personal care products). For example, an associative thickener will make the personal care product gel instead of being fluid as needed.

Appellants deny the Examiner's position concerning the Angerer patent:

"... that examples [in Angerer] discloses "ethylene glycol, defoamer, and silica" which are used in the personal care compositions. The compound is the same..."

As mentioned above, appellants other ingredient is an "active" personal care ingredient as defined on pages 6 and 7 and the working Examples of the specification. Ethylene glycol, defoamers, and silica are not active ingredients as required by the instant invention. Angerer is limited to aqueous protective coating compositions and there is simply no suggestion for using the compositions for any other use. Hence, although the above-mentioned materials may be used in personal care products, there is no suggestion, no teaching, no linking disclosure or reference for using them in personal care composition, and no enabling disclosure in the Angerer patent to make the quantum leap from coatings to personal care compositions. Hence, the Examiner 's position is denied.

Appellants further deny the Examiner's position:

"...that the patent [Sau] at col. 7, lines 5-15 disclose ingredients which are used in cosmetics and shampoos. TiO₂ is used in cosmetics and surfactants are used in shampoos."

Again, these are not active ingredients as defined in the specification and Examples for personal care compositions. Moreover, the polymers used in Sau are mixed hydrophobe type of polymers that are associative as

opposed to the short chain polymers of the instant invention, which are non-associative. The chemical and physical characteristics of these types of polymers are completely different. See the differences enumerated above concerning non-associative versus associative thickeners.

Appellant denies the Examiner's position that

"The claims [of the instant invention] are drawn to compositions and the patent [t'Sas] at col. 4, lines 15-20 disclose additives which are used in personal care compositions. Plasticizers are used in manicure and pedicure compositions; surface active agents and defoamers are in hair care art."

Again, t'Sas only discloses the use in building materials, not in personal care products. Although the above noted ingredients may have many uses in different industries, they are not the "active" ingredients that appellants have defined. Also, "defoamers" are not normally used in hair care products but just the opposite; in hair care products such as shampoos, the material should foam or lather. Moreover, the active ingredients for personal care products must be approved for use in personal products while ingredients for building materials do not have to be approved or meet the rigorous standards for personal care products. Hence, the Examiner's position is denied.

In re Spada 15USPQ2D 1655

The Examiner has relied on In re Spada to support the position of lack of novelty under section 102. It is submitted that the instant fact pattern is outside that of In re Spada and therefore should be allowed.

Without going in great detail of this case, it can be summarized by the following CCPA findings:

"... we conclude that the Board correctly found that the virtual identity of monomers and procedures sufficed to support a prima facie case of unpatentability of Spada's polymer latexes for lack of novelty."

"Although newly discovered properties can be the basis of claims to novel polymers, ... Spada did not overcome, with argument or evidence, the apparent chemical identity of his polymers and those of Smith. Spada showed no error, in science or in law, in the Board's holding that the products appeared to be the same and thus that Spada's products were not new."

"While Spada's position is that his polymers are not anticipated by the polymers of Smith because their properties are different, <u>Spada</u> was reasonably required to show that his polymer compositions are different from those described by <u>Smith</u>." (Emphasis added)

It is submitted that appellant has reasonably shown that his composition is different than those of the prior art. Appellant has demonstrated, supra, that his composition is directed to a personal care composition that has a specific polymer and at least one "active" personal care ingredient that has been defined in the specification on pages 6 and 7. Neither Angerer nor t'Sas discloses a personal care composition or an active personal care ingredient. These references disclose paint or building material compositions. The Sau patent has an empty disclosure that his polymer composition can be used in cosmetics or shampoos among other things; however, his entire disclosure only enable a person skilled in the art how to practice this composition in paint

formulations. Moreover, Sau's polymer is a mixed hydrophobe type polymer that is associative as opposed to being non-associative as the present invention. Hence, appellant's composition is clearly outside the scope of the prior art.

Concerning the Examiner's inferred contention that the rejection is being maintained because the intended use in the preamble of the claimed composition is not given patentable weight, appellant denies this contention. The rules and Statutes as well as the case law are quite clear that when a claim includes components of a particular product, i.e., cosmetic, personal care, or household product, and refers back to the preamble, then those claims are use type claims for that particular use or product. In other words, since appellants' claims contain at least one active ingredient of a personal care formulation as well as the stable polymer, these claims are such specific formulation claims and cannot be mistaken for paint or building material mortar formulations.

On the subject of the preamble, the Federal Circuit in <u>Corning Glass</u> Works v. Sumitomo Electric U.S. A., Inc. (9 USPQ2d 1962, Fed. Cir. 1989) said that:

"No litmus test can be given with respect to when the introductory words of a claim, the preamble, constitute a statement of purpose for a device or are, in themselves, additional structural limitations of a claim. To say that a preamble is a limitation if it gives "meaning to the claim" may merely state the problem rather than lead one to the answer. The effective preamble language can be resolved only on review of the entity of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim."

In the Angerer, Sau, or t'Sas patent, the specification makes it clear that the inventors were working on paint or building material formulations. Appellant makes it quite clear he is dealing with personal care formulations. To read the claims of this patent in light of the specification indiscriminately to cover all types of formulations would be divorced from reality. The invention is restricted to mortar and concrete formulations as defined in the specification which is significantly different than what appellant's invention intends. Hence, the claimed preamble as well as the ingredients in the claim limitations of the instant invention defines a specific and definite use that is non-analogous to that of paints and building materials.

B. THE REJECTED CLAIMS DO NOT STAND OR FALL TOGETHER

Claims 1 to 44 are each patentable for separate reasons.

1. Claims 2 & 3

These claims require a surfactant to be present and define specific types of surfactants that are not disclosed Angerer, Sau, and t'Sas.

Accordingly the rejection on these claims should be reversed.

2. Claims 4 & 7.

These claims likewise further require a compatible solvent and define specific types that are not disclosed in the prior art. This limitation further defines the invention and since the prior art does not anticipate or make obvious claim 1 for the reasons set forth above, these claims are clearly more novel than claim 1 over the prior art. Hence, the rejection of these claims should be reversed.

3. Claims 8 & 9.

These claims define the backbone of the polymer and preferred embodiments. These specific moieties make the claim more novel than claim 1 over the prior art. Therefore, the rejection of these claims should be reversed.

4. Claim 10.

This claim further limits claim 1 by defining a viscosifying salt that is not taught in the prior art. Hence, this feature makes claim 10 more novel than claim 1 over the prior art. Therefore, the rejection of this claim should be reversed.

5. Claims 11 & 20

These claims specifically define hair care compositions of the formulation of claim 7. The prior art patents do not disclose any hair or skin care products less alone the novel product based on the novel compositions of claims 1 and 7 of the instant application. Therefore, this rejection should be reversed.

6. Claims 12, 13, & 19

Claims 12, 13, and 19 further define specific personal care formulations based on the specific formulation of claim 4. Since claim 4 is patentable over the prior art, these claims are even more patentable than claim 4.

7. Claims 14-18 & 21-41

These claims define preferred specific embodiments of claim 1 and are each further patentable over claim 1.

8. Claims 42 & 43

The claims define linking groups that overlap with the prior art. Hence, these claims stand or fall with claim 1.

9. Claim 44

This claim defines a specific hydrophobic moiety that is disclosed in the prior art and stand or fall with claim 1.

CONCLUSION

The claims are drawn to novel subject matter; the claims are drawn to concepts that are not anticipated by and obvious from the prior art. The Examiner has not shown every feature of the instant invention in a single reference or a linking reference or teaching that shows or suggests that the prior art references could be used in personal care products. Appellant is entitled to a patent under the Statutes. The Board is respectfully requested to reverse the Examiner.

Respectfully submitted,

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February **3** , 2000

APPENDIX

- 1. A personal care composition comprising:
- (a) from about 0.1% to about 99% by weight of a vehicle system which comprises a hydrophobically modified nonionic water soluble polysaccharide polymer having a hydrophilic portion which comprises a water soluble polysaccharide polymer backbone and a hydrophobic moiety selected from the group consisting of C₃-C₇ alkyl, aryl alkyl, alkyl aryl groups and mixtures thereof, wherein the ratio of the hydrophilic portion to the hydrophobic portion of the polymer is from about 2:1 to 1000:1, and
 - (b) at least one active personal care ingredient.
- 2. The composition of claim 1 wherein the composition also comprises from about 0.01% to about 25% by weight of the personal care composition of a surfactant.
- 3. The composition of claim 2 wherein the surfactant is selected from the group consisting of anionic, nonionic, cationic, zwitterionic, and amphoteric, mixtures thereof.
- 4. The composition of claim 1 wherein the composition also comprises from about 0.1% to about 99% by weight of the personal care composition of a compatible solvent or solvent mixture.
- 5. The composition of claim 4 wherein the solvent or solvent mixture is selected from the group consisting of water, water-lower alkanols mixtures, polyhydric alcohols having from 3 to 6 carbon atoms and from 2 to 6 hydroxyl groups, and mixtures thereof.
 - 6. The composition of claim 5 wherein the solvent or solvent mixture

is selected from the group consisting of water, propylene glycol, waterglycerine, sorbitol-water, water-ethanol, and mixtures thereof.

- 7. The composition of claim 2 wherein the composition also comprises from about 0.1% to about 99% by weight of the personal care composition of a compatible solvent or solvent mixture.
- 8. The composition of claim 1 wherein the hydrophobically modified polysaccharide backbone is selected from the group consisting of hydroxyethylcellulose (HEC), hydroxypropylcellulose (HPC), methylcellulose (MC), hydroxypropylmethylcellulose (HPMC), ethylhydroxyethylcellulose (EHEC), and methylhydroxyethylcellulose (MHEC), and agar, dextran, locust bean gum, starch, guar, and their nonionic derivatives, and mixtures thereof.
- 9. The composition of claim 1 wherein the polysaccharide backbone is HEC and the hydrophobic moiety is 3-butoxy-2-hydroxypropyl.
- 10. The composition of claim 4 wherein composition also contain an effective viscosifying amount of a salt.
- 11. A hair or skin care composition comprising a solvent and an effective amount of the personal care composition of claim 7.
- 12. A shampoo comprising an effective amount of the personal care composition of claim 4.
- 13. A conditioner comprising an effective amount of the personal care composition of claim 4.
 - 14. A shampoo-conditioner comprising an effective amount of the

composition of claim 1.

- 15. A sun care product comprising a solvent and an effective amount of personal care composition of claim 1.
- 16. A shower gel comprising an effective amount of cleaning composition of claim 1.
- 17. A soap comprising an effective amount of the personal care composition of claim 1.
- 18. A hair styling gel composition comprising an effective amount of the personal care composition of claim 1.
- 19. A hair styling gel composition comprising an effective amount of the personal care composition of claim 4.
- 20. A hair anti-dandruff composition comprising solvent and effective amount of the personal care composition of claim 7.
- 21. A hair growth promoter composition comprising an effective amount of the personal care composition of claim 1.
- 22. A hair colorant composition comprising an effective amount of the personal care composition of claim 1.
- 23. A hair bleaching agent composition comprising an effective amount of the personal care composition of claim 1.
- 24. A hair anti-frizzing agent composition comprising an effective amount of

the personal care composition of claim 1.

- 25. A hair relaxer composition comprising an effective amount of the personal care composition of claim 1.
- 26. A dentifrice composition comprising an effective amount of the personal care composition of claim 1.
- 27. A mouth wash composition comprising an effective amount of the personal care composition of claim 1.
- 28. A denture adhesive composition comprising an effective amount of the personal care composition of claim 1.
- 29. A shaving product composition comprising an effective amount of the personal care composition of claim 1.
- 30. A lubricating gel composition comprising an effective amount of the personal care composition of claim 1.
- 31. A spermicide gel composition comprising an effective amount of the personal care composition of claim 1.
- 32. A beauty aid composition comprising an effective amount of the personal care composition of claim 1.
- 33. An underarm solid stick composition comprising an effective amount of the personal care composition of claim 1.
 - 34. An underarm gel composition comprising an effective amount of

the personal care composition of claim 1.

- 35. An underarm liquid composition comprising an effective amount of the personal care composition of claim 1.
- 36. An underarm liquid composition of claim 35 wherein the composition comprising an aerosol ingredient.
- 37. The composition of claim 1 where composition also comprises an oil-in-water or water in oil emulsion.
- 38. A cleansing composition comprising an effective amount of composition of claim 1.
- 39. A hair grooming and hair detangler composition comprising an effective amount of the personal care composition of claim 1.
- 40. A razor blade lubrication strip composition comprising an effective amount of the personal care composition of claim 1.
- 41. A cleansing tissue composition comprising an effective amount of the personal care composition of claim 1.
- 42. The personal care composition of claim 1, wherein the hydrophobic moiety is attached to the backbone by a linkage group selected from the class consisting of ether, ester, and urethane.
- 43. The personal care composition of claim 42, wherein the linkage group is an ether.
 - 44. A personal care composition comprising:

- a. from about 0.1% to about 99% by weight of a vehicle system which comprises a hydrophobically modified nonionic water soluble polysaccharide polymer having a hydrophilic portion which comprises a water soluble polysaccharide polymer backbone and a hydrophobic moiety which comprises 3-alkoxy-2-hydroxypropyl group wherein the alkyl moiety is a straight or branch chain having 2-6 carbon atoms, and wherein the ratio of the hydrophilic portion to the hydrophobic portion of the polymer is from about 2:1 to 1000:1, and
 - b. at least one active personal care ingredient.